THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HORST ROESCHERT,
JUERGEN FUCHS, WALTER SPIESS,
CHARLOTTE ECKES, GEORG PAWLOWSKI
and RALPH DAMMEL

Appeal No. 96-0472
Application 07/871,032[1]

ON BRIEF

Before KIMLIN, PAK and WARREN, *Administrative Patent Judges.*

WARREN, *Administrative Patent Judge.*

Decision on Appeal and Opinion

This is an appeal under 35 U.S.C. ' 134 from the decision of the examiner finally rejecting claims 1 through 3, 5 through 14, 16 and 18 through 21.[2] Claims 15, 17 and 22, also of record, have been indicated to be allowable.

We have carefully considered the record before us, and based thereon, find that we cannot

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[1] Application for patent filed April 20, 1992.
[2] Amendment of April 5, 1993; specification, pages 30-33.

sustain the grounds of rejection advanced on appeal by the examiner under 35 U.S.C. ' 103 wherein claims 1 through 3, 5, 6, 8 through 14, 16 and 18 through 20 are rejected as being unpatentable over Ueno et al. (>582 or >813) in view of Ueno et al. (article) (answer, pages 3-6); claim 7 is rejected as being unpatentable over the combination of Ueno et al. references, further in view of the instant disclosure (answer, page 6); and claim 21 is rejected as being unpatentable over the combination of Ueno et al. references, further in view of Celeste (answer, pages 6-7).[3]

The dispositive issue in this appeal is whether the Ueno et al. (article) would have motivated one of ordinary skill in this art to interchange the di-, tri- and tetra-(lower alkyl sulfonyloxy)benzene esters employed as the acid precursor in the negative-acting compositions of Ueno et al. (e.g., >582, col. 3, lines 24-48) with a 1,2,3-tri(C_6-C_{10} arylsulfonyloxy)benzene. We find that Ueno et al. (article) disclose the order of sensitivity of 1,2,3-tri(C_1-C_4 alkylsulfonyloxy)benzenes and 1,2,3-tri(C_6-C_{10} arylsulfonyloxy)benzenes in a positive resist system, based on Aexposure characteristic curves@ in AFig. 2,@ and conclude that A[i]t is interesting to note that smaller sulfonic acid is effective for deprotection reaction of tBOC-BA@ (pages 66-67).

The examiner alleges that A[w]hether the resist is positive or negative and whether the sulfonic acid ester is an arylsulfonic acid ester or an alkanesulfonic acid ester, the sulfonic acid is functionally equivalent in all cases@ (answer, page 8). Thus, the examiner contends that A[a]lthough, [sic] Ueno et al. (article) teach alkylsulfonic acid esters are more sensitive than arylsulfonic acid esters in the compositions of the teaching [sic], this reference still teaches that arylsulfonic acid esters can be used as acid generators@ (answer, page 9). Appellants submit that the teachings of Ueno et al. (article) that we set forth above would not have reasonably suggested to one of ordinary skill in this art that alkanesulfonic acid esters can be used in place of arylsulfonic acid esters (principal brief, filed June 30, 1995, Paper No. 25; pages 16-18). Based on the record in this appeal, we agree with appellants.

We find that the statement that Asmaller sulfonic acid is effective for deprotection reaction@ in a positive resist system and the results shown in AFig. 2@ with both the alkyl and aryl ester derivatives in

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[3] The references relied on by the examiner with respect to the grounds of rejection are listed at page 2 of the answer. We refer to these references in our opinion by the name associated therewith by the examiner.

this system in Ueno et al., without more, would have reasonably suggested to one of ordinary skill in this art that the larger sulfonic acids derived from the aryl ester derivatives are *ineffective* in a positive resist system. Thus, based on this record, we are constrained to conclude that one of ordinary skill in this art would not find in the negative teaching of ineffectiveness of arylsulfonic acid in a positive resist system in Ueno et al. (article) any suggestion to use the same arylsulfonic acids in place of smaller sulfonic acids in a negative resist system of Ueno et al. (>582 or >813) with a reasonable expectation of success. *Compare In re Gurley*, 27 F.3d 551, 552-53, 31 USPQ2d 1130, 1131-32 (Fed. Cir. 1994). Accordingly, because the examiner has not made out a *prima facie* case of obviousness in any of the grounds of rejection on appeal, we reverse all of the grounds of rejection.

The examiner=s decision is reversed.

Reversed

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
CHUNG K. PAK	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
CHARLES F. WARREN	)	
Administrative Patent Judge	)	

Foley & Lardner, Schwartz, Jeffery,
Schwaab, Mack, Blumenthal & Evans
P.O. Box 299
Alexandria, VA 22311-0299